Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Research in Social Stratification and Mobility 71 (2021) 100563

Contents lists available at ScienceDirect

Research in Social Stratification and Mobility

journal homepage: www.elsevier.com/locate/rssm

COVID-19 and the decline in Asian American employment

Andrew Taeho Kim [1], ChangHwan Kim [*,1], Scott E. Tuttle [1], Yurong Zhang [1]

Department of Sociology, University of Kansas, United States

ARTICLE INFO

Keywords:
Asian Americans
COVID-19
Employment
Lockdown
Reopen

ABSTRACT

The unemployment rate has sharply increased as a result of the lockdown associated with the spread of COVID-19. The negative effect of the lockdown is more conspicuous among the less-educated workers than the highly-educated workers. Because Asian Americans are more likely to have a bachelor or higher degree than any other racial group, they are expected to be relatively immune to the drop in employment unless the detrimental impact of the lockdown is severer for Asian Americans. Exploiting the panel aspect of the Current Population Survey – Merged Outgoing Rotation Group, we examine the changes in At-work status before and after the lockdown and between the lockdown and months of the reopening. The empirical results uncover that Asian Americans are more negatively affected by the lockdown than any other racial group, net of education, immigration status, and other covariates. Surprisingly, the negative impact of the lockdown is entirely concentrated on less-educated Asian Americans. Regardless of gender, less-educated Asian Americans are substantially more likely to lose employment than equally educated Whites and are not more likely to regain employment during the reopening months. Other less-educated racial minorities do not experience more reduction in At-work status than Whites, net of covariates. Highly-educated Asian Americans' employment is equally affected by the lockdown with equally educated Whites.

1. Introduction

COVID-19 brought forth an unprecedented level of unemployment in the United States (Bartik, Bertrand, Lin, Rothstein, & Unrath, 2020). The increase in unemployment is primarily driven by mass layoffs, and not individuals quitting their jobs (Dias, Chance, & Buchanan, 2020). Previous research on labor market outcomes at the onset of COVID-19 (Bartik et al., 2020; Collins, Landivar, Ruppanner, & Scarborough, 2020; Cowan, 2020; Fairlie, Couch, & Xu, 2020) suggests that the adverse effect of the lockdown is more pronounced among those groups who were typically disadvantaged in the labor market pre-pandemic. The negative effect of the lockdown is more conspicuous among the less-educated workers than the highly-educated workers (Bartik et al., 2020; Cowan, 2020; Montenovo et al., 2020). Because Asian Americans are more likely to have a bachelor's or higher degree than any other racial group (Sakamoto, Goyette, & Kim, 2009), they are expected to be relatively immune to the drop in employment. Lower reservation wages for immigrants (Wang & Sakamoto, 2016) provides another reason to believe that Asian Americans might be relatively immune to the detrimental labor market impact of COVID-19. Contrary to this expectation, however, there are sizeable job losses among Asian Americans (Bartik et al., 2020; Cheng et al., 2020). Nevertheless, the employment status of Asian Americans during the pandemic is seldom discussed even if statistical results are presented in tables.

Previous studies demonstrated that the negative impacts of natural disasters and economic recessions are not ubiquitous across groups but more consequential to minorities (Downey, 2014; Hout, Levanon, & Cumberworth, 2011; Zottarelli, 2008). For example, the Great Recession of 2008 is known for its significant impacts on the employment status of less-educated men, younger workers, and Black and Hispanic workers (Hoynes, Miller, & Schaller, 2012). Asian Americans were not a part of the minority groups who are more negatively affected by disasters than Whites in the 2008 Great Recession (Elsby, Bart, & Aysegul, 2010; Wang & Sakamoto, 2016). Though Hurricane Katrina impacted the Vietnamese community heavily, they could recover relatively quickly, while Black Americans suffered from lingering effects (Elliott & Pais, 2006). The effects of COVID-19 on Asian Americans, however, can be different from the previous disasters. The COVID-19 pandemic is unique in that it presumably originated in Wuhan, China. As early as March of 2020, the FBI predicted a potential rise in anti-Asian hate crime due to the

* Corresponding author.
E-mail addresses: andrew_taeho@ku.edu (A.T. Kim), chkim@ku.edu (C. Kim), setth5@ku.edu (S.E. Tuttle), yurongzhang@ku.edu (Y. Zhang).
[1] Each author contributed equally.

https://doi.org/10.1016/j.rssm.2020.100563
Received 29 September 2020; Accepted 5 October 2020
Available online 8 October 2020

Table 1
Changes in Employment Status by Lockdown and Reopening.

(A) Lockdown Panel				(B) Reopening Panel			
		Period 1 (Jan-Mar)				Period 2 (Apr-May)	
		At-work	Not-work			At-work	Not-work
Period 2 (Apr)	At-work	(I) Continuous At-work	(II) New At-work	Period 3 (May-Aug)	At-work	(I) Continuous At-work	(II) New At-work
	Not-work	(III) New Not-work	(IV) Continuous Not-work		Not-work	(III) New Not-work	(IV) Continuous Not-work

COVID-19 pandemic (Mallin & Margolin, 2020). Analyses of data from March of 2020 to mid-May have supported the FBI's predictions of a spike in anti-Asian hate crimes (Choi & Kulkarni, 2020).

Existing studies on the impact of COVID-19 show a larger negative effect in labor market activities among racial and ethnic minorities, those born outside the U.S., women with children, the least educated, and workers with a disability (Cowan, 2020, Bartik et al., 2020; Collins et al., 2020; Fairlie, 2020; Kristal & Yaish, 2020; Landivar, Ruppanner, Scarborough, & Collins, 2020; Moen, Pedtke, & Flood, 2020; Montenovo et al., 2020). Bartik et al. (2020) report that Asian Americans were 5.4 % point more likely to lose employment than Whites in April, while the disadvantages of Blacks and Hispanics compared to Whites were 4.8 % point and 1.7 % point, respectively. Disparities in the impact of COVID-19 are particularly salient by levels of education, especially between college-educated and less than college-educated workers (Cowan, 2020: 16; Fairlie et al., 2020). During the reopening months, the employment rebound further stratified the workforce, because the high concentration of initial job loss among lower-wage workers was accompanied by a much slower recovery rate among workers in the lowest wage quantile (Cajner et al., 2020).

Although informative, the existing studies that include Asian Americans in their analyses (e.g., Bartik et al., 2020; Cheng et al., 2020) do not control migration status and region, two crucial covariates in estimating the net effect of being Asian Americans, nor do they address why Asian Americans' high education did not protect them. As for Asian Americans, the focus of the current COVID-19 literature is usually on the discriminatory practices outside the labor market (Kantamneni, 2020). In this study, we examine whether Asian Americans bear a harder labor market hit by COVID-19 net of covariates, and explore the variation of the negative effect of COVID-19 across levels of education and by gender.

2. Methods

2.1. Data

We utilize the Current Population Survey – Merged Outgoing Rotation Group (CPS-MORG) available at IPUMS (Flood, King, Rodgers, Ruggles, & Warren, 2020). The CPS-MORG is a monthly survey that is the source of the official government employment statistics. For this study, we use January to August surveys of the 2020 CPS-MORG. Samples are limited to age 18–59. We exclude those who are in the armed forces or in school either in full-time or part-time.

The CPS-MORG has a unique 4-8-4 sampling scheme. Capitalizing on this unique sampling scheme, we convert the CPS-MORG into a mini-panel dataset. Individuals in each monthly survey are longitudinally linked using the individual identification key (i.e., cpsidp) provided by IPUMS. We build two panel datasets: the lockdown panel, which links months (January to March) before the lockdown to the most stringent lockdown month (April); and the reopening panel, which links the most stringent lockdown months (April and May) to the months of reopening (May-August). For the individuals who appear more than once before and after the lockdown month, we keep the data point of the nearest month for the lockdown panel and that of the farthest month for the reopening panel. Each individual appears twice in each panel.

2.2. Methods

The main dependent variable of interest is the changes in work status before and after the lockdown compared to the work status during the lockdown. Using the employment status information in each month, we classify the changes in employment status into 4 types: (I) continuously working in both periods; (II) previously not-working but working in the later period; (III) previously working but not-working in the later period;

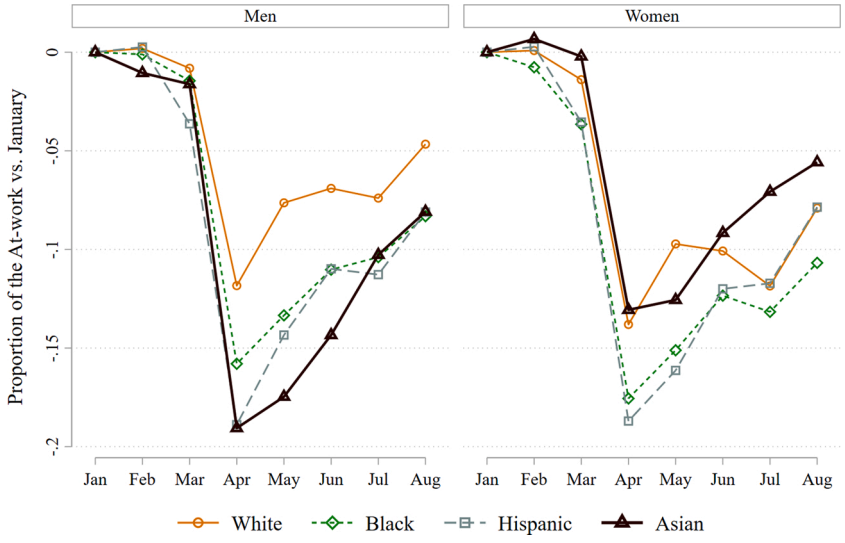

Fig. 1. Change in the Proportion of the Currently At-work by Race between January and August in 2020 among 18-59 Year Old.
Notes: Calculated from CPS-MORG monthly.

Table 2
Marginal Effects of Multinomial Logit: Lockdown and Reopening (Ref. = Non-Hispanic White Women).

	(I) Continuous At-work		(II) New At-work		(III) New Not-work		(IV) Continuous Not-work	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
I. Lockdown								
a. Men								
Non-Hispanic Blacks	−0.113***	(0.007)	0.017*	(0.007)	0.039**	(0.013)	0.057***	(0.012)
Hispanics	0.012	(0.014)	0.001	(0.005)	−0.002	(0.010)	−0.011	(0.009)
Asian Americans	−0.068**	(0.022)	−0.016***	(0.004)	0.039*	(0.017)	0.045*	(0.018)
Others	−0.111***	(0.029)	0.001	(0.009)	0.038	(0.022)	0.072***	(0.021)
-2LL (Observations)	90,347,866 (N = 16,424)							
b. Women								
Non-Hispanic Blacks	−0.028	(0.016)	−0.000	(0.005)	0.015	(0.012)	0.013	(0.014)
Hispanics	0.017	(0.015)	0.004	(0.005)	0.014	(0.011)	−0.034**	(0.012)
Asian Americans	−0.023	(0.022)	−0.004	(0.006)	0.027	(0.016)	0.000	(0.019)
Others	−0.011	(0.030)	−0.011	(0.007)	0.041	(0.023)	−0.019	(0.025)
-2LL (Observations)	105,619,234 (N = 17,114)							
II. Reopening								
a. Men								
Non-Hispanic Blacks	−0.097***	(0.016)	−0.011	(0.009)	0.005	(0.007)	0.103***	(0.014)
Hispanics	0.006	(0.013)	0.000	(0.008)	0.007	(0.006)	−0.013	(0.010)
Asian Americans	−0.073***	(0.021)	−0.002	(0.012)	0.006	(0.010)	0.068***	(0.018)
Others	−0.132***	(0.030)	−0.003	(0.018)	0.005	(0.015)	0.130***	(0.026)
−2LL (Observations)	126,191,225 (N = 19,248)							
b. Women								
Non-Hispanic Blacks	−0.053***	(0.015)	−0.011	(0.008)	0.015*	(0.008)	0.050***	(0.015)
Hispanics	−0.021	(0.014)	0.005	(0.008)	0.022**	(0.007)	0.005	(0.013)
Asian Americans	−0.046*	(0.021)	−0.006	(0.011)	−0.005	(0.008)	0.057**	(0.020)
Others	−0.004	(0.030)	0.009	(0.017)	0.006	(0.014)	−0.012	(0.026)
-2LL (Observations)	142,728,660 (N = 19,891)							

Notes: Marginal effects are estimated at means. Controls variables include age, age squared, levels of education, immigrant and citizen indicators, marital status, number of children, family size, census region, and month in sample as of January to March.

* $p < .05$.
** $p < .01$.
*** $p < .001$ (two-tailed test).

and (IV) continuously not-working in both periods. Table 1 shows our scheme. At-work refers to currently working. Not-work includes have-a-job-but-not-working, unemployment, and not-in-labor-force (NILF).

Using the changes in employment status as a dependent variable, we estimate multinomial logistic regressions. The main independent variable, race, consists of non-Hispanic Whites (= reference group, Whites hereafter), non-Hispanic Blacks (Blacks hereafter), Hispanics, Asian Americans, and others. Control variables include age, age-squared, education (less than high school; high school graduate; some college; BA; and graduate degree), marital status, number of children, family size, immigrant, citizenship, and 9-census regions. The month in sample of the CPS-MORG is also controlled. We weight all analyses and report robust standard errors.

3. Empirical findings

Soon after the lockdown, the proportion of At-work among the 18–59-year-old population plummeted from 75.3 % in March to 62.3 % in April, a 13.0 % point drop. The drop is much severer for the less-educated (a 16.3 % point drop for those with a high school diploma or less) than that for the highly-educated (an 8.6 % point drop for BA+). Even though Asian Americans are more educated than any other racial/ethnic groups, the drop in At-work for them is greater than other races. In particular, Asian American men were hit hard. Fig. 1 shows the changes in the proportion of At-work by race and gender over eight months. The proportion of At-work for Asian American men dropped by 17.5 percentage points between March and April, while the drops for White, Black, and Hispanic men were by 11.0, 14.3, and 15.3 % points, respectively. The At-work rate improved for all races during the reopening months. However, the At-work rate did not return to the pre-lockdown level as of August. Women's employment was equally negatively affected to men's. Contrary to men, however, Asian American women do not seem to be more negatively affected compared to other racial groups.

Table 2 present the marginal effects of multinomial logits after controlling for other covariates. It shows the net effect of being minorities compared to Whites. New Not-work rate after the lockdown is 3.9 % point higher for Asian American men. Black men experience a similar magnitude of increase in New Not-work. Many lost their work because of the lockdown, but some gained new employment. Interestingly, the rate of New At-work is statistically significantly higher for Black men compared to White men, while that for Asian American men is statistically significantly lower. Combining the rates of New At-work and New Not-work, the disadvantage of Asian American men compared to White men is 5.5 % point, while that of Black men is 3.2 % point. To check further whether the hardship of Asian Americans after the lockdown is associated with their immigration status, we limit our sample to the native-born (not shown here). To our surprise, the relative rate of New Not-work compared to White men grows to 6.8 percentage points for native-born Asian American men. Nativity status does not protect the particularly detrimental effect of the lockdown against Asian American men. In another model, we restrict the sample to those who had worked before the lockdown. Our results are not changed. Unlike men, no statistically significant differences across races are evident for women. It is worth noting that the higher Continuous Not-work rate for Hispanic women is associated with their lower labor force participation rate before the pandemic.

Next, we assess the variation across racial groups in regaining employment during the reopening. For both genders, no racial minorities show a statistically significantly positive increase in New At-work, which indicates that the change in At-work during the reopening is invariant across races. Minority groups who experienced the more detrimental impact of the lockdown in At-work status do not return to work at a higher rate than Whites. Instead, Black and Hispanic women more likely lost their At-work status than Whites even during the reopening.

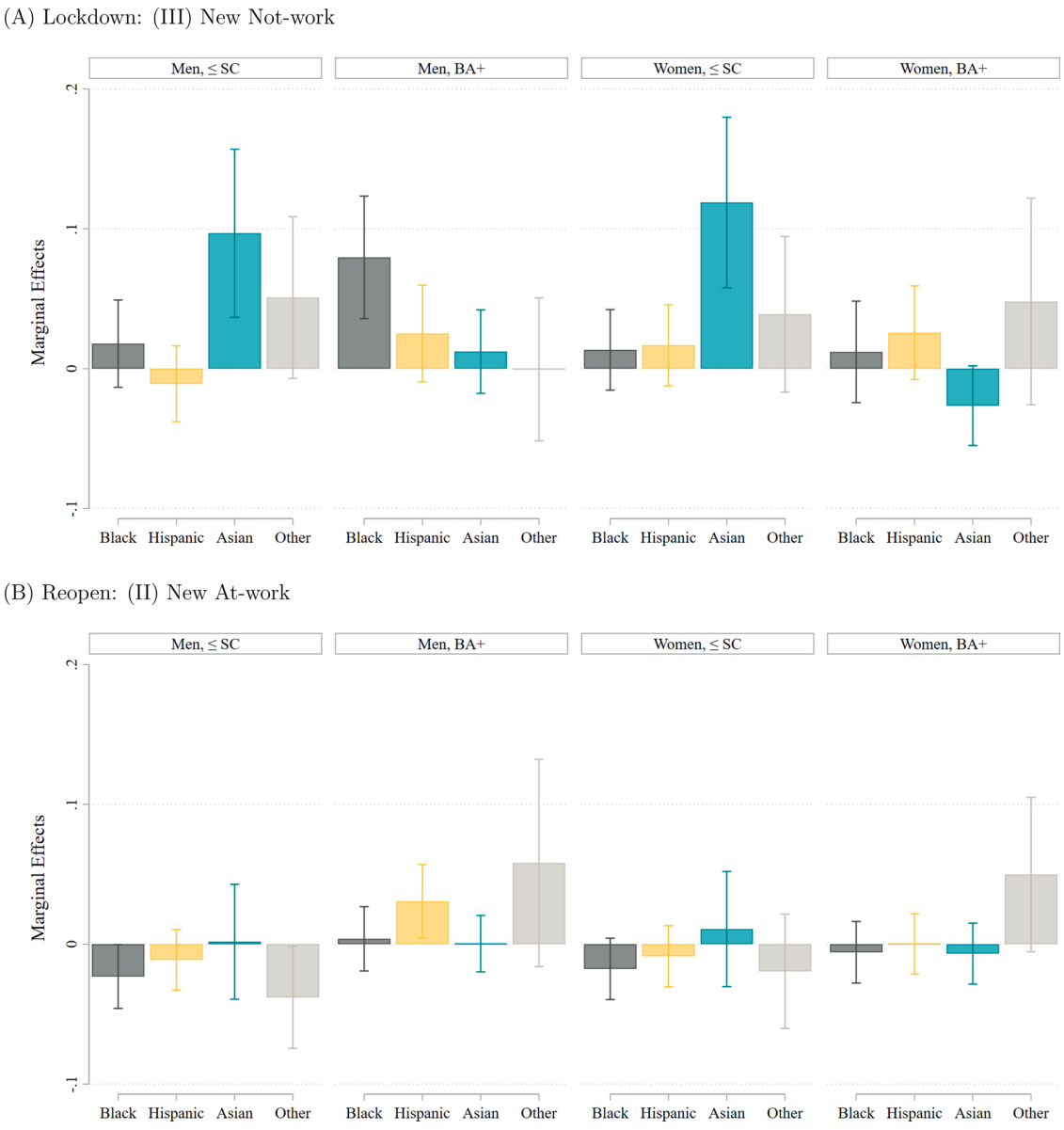

Fig. 2. Marginal Effects of Multinomial Logits: Being Minority Compared to Whites Disaggregated by Education and Gender.
Notes: Specifications include race, age, age squared, levels of education, immigrant and citizen indicators, marital status, family size, number of children, census region, and month in sample as of January-March for the lockdown, and April-May for the reopening. Only the marginal effects for (III) New Not-work for lockdown, and (II) New At-work for reopen are shown. Vertical lines indicate 95 % confidence interval.
(A) Men, ≤ SC: N = 10,671; Men, BA+: N = 5,753; Women, ≤ SC: N = 10,077; Women, BA+: N = 7,037.
(B) Men, ≤ SC: N = 12,365; Men, BA+: N = 6,883; Women, ≤ SC: N = 11,417; Women, BA+: N = 8,474.

The more rapid drop in employment for Asian Americans compared to Whites during the lockdown raises a question: why did the higher level of educational attainment of Asian Americans not protect them from the negative impact of the lockdown? To address this question, we estimate multinomial logit models separately by education. Fig. 2 presents the marginal effects of being minorities compared to Whites. For simplicity, the marginal effects of (III) New Not-work after the lockdown and those of (II) New At-work during the reopening are depicted.

The relatively higher rise in Not-work after the lockdown among Asian Americans is evident only among those with less than a bachelor's degree. Asian Americans who have a bachelor's or higher degree seem to be equally protected from the negative impact of the lockdown to Whites.[2] Among men who do not have a bachelor's degree, Asian Americans are the most disadvantaged. The proportion of those who lost At-work status after the pandemic among the less-educated is 9.7 % point higher for Asian Americans than Whites. For comparison, the gap between White and Black men is 1.8 % point. Interestingly, gender differences among Asian Americans disappear in the education segregated models. Like less-educated Asian American men, less-educated Asian American women experienced a higher increase in Not-work

[2] It is noteworthy that the excessive reduction in At-work status after the lockdown is conspicuous among the highly-educated Blacks, while the less-educated Blacks are not more disadvantaged than less-educated Whites in terms of the likelihood of losing a job after the lockdown, net of covariates.

rate than equally educated White women. No other less-educated racial minorities are negatively affected by the lockdown as much as Asian Americans, regardless of gender. These results are consistent with the previous finding that the model minority image hurts Asian Americans who do not fit with such an image (Kim & Sakamoto, 2014). The control of occupation and industry in the previous job cannot account for the less-educated Asian Americans' plight. During the reopening months, Asian Americans do not experience a higher gain in New At-work than other racial groups, regardless of gender or levels of education. Asian Americans who lost a job during the lockdown are equally likely to remain at Not-work status with other racial groups.

4. Conclusion

Our study sheds new light on the racialized impact of COVID-19. Asian Americans used to experience a smaller magnitude of labor market disadvantages than other racial minorities (Kim & Sakamoto, 2010; Kim & Zhao, 2014). In contrast to the model minority image of Asian Americans, the drop in the rate of the currently At-work as a result of the lockdown is most severe among less-educated Asian Americans, regardless of gender. The reasons why less-educated Asian Americans are so negatively affected while highly educated Asian Americans are comparable with other racial groups should be studied further. There are several possible explanations. First, this can be a result of the rise in anti-Asian sentiment as political leaders portrayed COVID-19 as the Chinese virus or Wuhan virus (discrimination). Another possibility is that Asian Americans are more likely to opt out from the labor market in facing the risk of COVID-19 as they are more sensitive to the danger of COVID-19, or they have other resources to cope with the financial problem of unemployment (self-selection). We also cannot rule out a possibility of other labor market mechanisms such that Asian Americans reduce outdoor activities including shopping more than other groups, and as a result, ethnic economy suffers. Future research on other labor market outcomes such as work hours, earnings, and job changes are also warranted.

References

Bartik, A. W., Bertrand, M., Lin, F., Rothstein, J., & Unrath, M. (2020). *Measuring the labor market at the onset of the COVID-19 crisis. NBER Working Paper Series, w27613*.

Cajner, T., Crane, L. D., Decker, R. A., Grigsby, J., Hamins-Puertolas, A., Hurst, E., Kurz, C., & Yildirmaz, A. (2020). *The U.S. labor market during the beginning of the pandemic recession. NBER Working Paper 27159*.

Cheng, W., Carlin, P., Carroll, J., Gupta, S., Rojas, F. L., Montenovo, L., et al. (2020). *Back to business and (re)employing workers? Labor market activity during state COVID-19 reopenings. NBER Working Paper Series, w27419*.

Choi, C., & Kulkarni, M. P. (2020). In six weeks, STOP AAPI HATE receives over 1700 incident reports of verbal harassment, shunning and physical assaults. *Chinese for Affirmative Action*.

Collins, C., Landivar, L. C., Ruppanner, L., & Scarborough, W. J. (2020). COVID-19 and the gender gap in work hours. *Gender, Work, and Organization*. https://doi.org/10.1111/gwao.12506.

Cowan, B. W. (2020). *Short-run effects of COVID-19 on U.S. Worker transitions. (2020). NBER working paper series, w27315*.

Dias, F. A., Chance, J., & Buchanan, A. (2020). The motherhood penalty and the fatherhood premium in employment during COVID-19: Evidence from the United States. *Research in Social Stratification and Mobility, 69*, Article 100542.

Downey, D. C. (2014). Disaster recovery in black and white: A comparison of New Orleans and Gulfport. *The American Review of Public Administration, 46*(1), 51–74.

Elliott, J. R., & Pais, J. (2006). Race, class, and Hurricane Katrina: Social differences in human responses to disaster. *Social Science Research, 35*(2), 295–321.

Elsby, M. W., Bart, H., & Aysegul, S. (2010). *The labor market in the great recession. NBER working paper series, w15979*.

Fairlie, R. W. (2020). *The impact of COVID-19 on small business owners: The first three months after social-distancing restrictions. NBER Working Paper Series, w27462*.

Fairlie, R. W., Couch, K., & Xu, H. (2020). *The impacts of COVID-19 on minority unemployment: First evidence from April 2020 CPS microdata. NBER Working Paper Series, w27246*.

Flood, S., King, M., Rodgers, R., Ruggles, S., & Warren, J. R. (2020). *Integrated public use microdata series, Current Population Survey: Version 7.0 [dataset]*. Minneapolis: IPUMS.

Hout, M., Levanon, A., & Cumberworth, E. (2011). Job loss and unemployment. In D. B. Grusky, B. Western, & C. Wimer (Eds.), *The great recession* (pp. 59–81). New York: Russell Sage Foundation.

Hoynes, H., Miller, D. L., & Schaller, J. (2012). Who suffers during recessions? *The Journal of Economic Perspectives, 26*(3), 27–48.

Kantamneni, N. (2020). The impact of the COVID-19 pandemic on marginalized populations in the United States: A research agenda. *Journal of Vocational Behavior, 119*, Article 103439.

Kim, C., & Sakamoto, A. (2010). Have Asian American men achieved labor market parity with white men? *American Sociological Review, 75*(6), 934–957.

Kim, C., & Sakamoto, A. (2014). The earnings of less-educated Asian American men: Educational selectivity and the model minority image. *Social Problems, 61*(2), 283–304.

Kim, C., & Zhao, Y. (2014). Are Asian American women advantaged? Labor market performance of college educated female workers. *Social Forces, 93*(2), 623–652.

Kristal, T., & Yaish, M. (2020). Does the coronarivus pandemic level the gender inequality curve? (It doesn't). *Research in Social Stratification and Mobility, 68*, Article 100520.

Landivar, L. C., Ruppanner, L., Scarborough, W. J., & Collins, C. (2020). Early signs indicate that COVID-19 is exacerbating gender inequality in the labor force. *Socius, 6*, 1–3.

Mallin, A., & Margolin, J. (2020). *Homeland security warns terrorists may exploit COVID-19 pandemic*. https://abcnews.go.com/Politics/homeland-security-warnsterrorists-exploit-covid-19-pandemic/story?id=69770582.

Moen, P., Pedtke, J. H., & Flood, S. (2020). Disparate disruptions: Intersectional COVID-19 employment effects by age, gender, education, and race/ethnicity. *Work Aging and Retirement*. https://doi.org/10.1093/workar/waaa013.

Montenovo, L., Jiang, X., Rojas, F. L., Schmutte, I. M., Simon, K. I., Weinberg, B. A., et al. (2020). *Determinants of disparities in COVID-19 job losses. NBER working paper series, w27132*.

Sakamoto, A., Goyette, K., & Kim, C. (2009). Socioeconomic attainments of Asian Americans. *Annual Review of Sociology, 35*, 255–276.

Wang, S. X., & Sakamoto, A. (2016). Did the Great Recession downsize immigrants and native-born Americans differently? Unemployment differentials by nativity, race and gender from 2007 to 2013 in the US. *Social Sciences, 5*(3), 1–14.

Zottarelli, L. (2008). Post-hurricane Katrina employment recovery: The interaction of race and place. *Social Science Quarterly, 89*, 592–607.